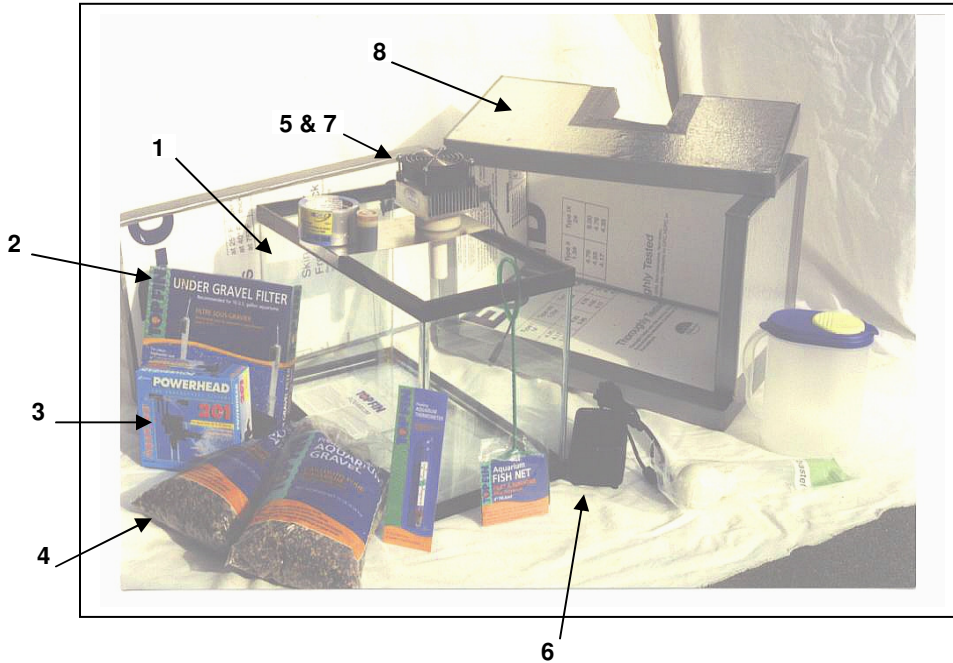


TIC Aquarium Assembly Procedure

10 Gallon – Insulated, with Nova Tec Chiller Probe

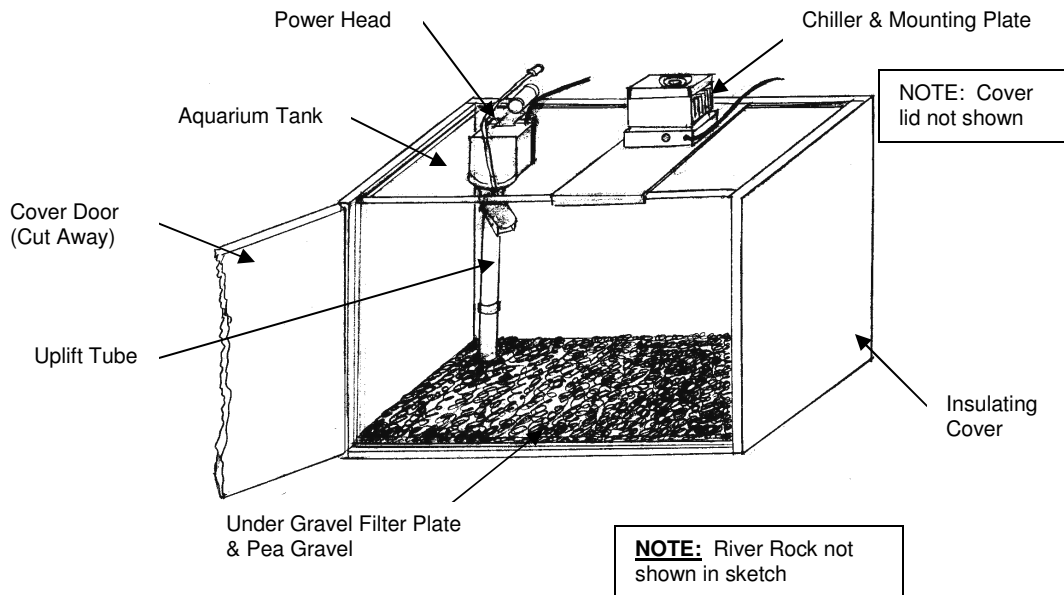
Aquarium Assembly Kit



Major Parts List:

#	DESCRIPTION	MFR/PART NUMBER	COMMENTS
1	Aquarium Tank, 10 gal	Top Fin (or equivalent)	10.25" x 20" x 12" high (OD)
2	Under Gravel Filter (10" x 20")	Top Fin (or equivalent)	For 10 gal aquariums
3	Pump for under gravel filter	Powerhead 201 (Aquaclear)	For aquariums to 20 gal
4	Natural colored rocks (Pea Gravel)		15 to 20 pounds
5	Ice Probe	Nova Tec Model IPWC-50W	(Supplied with power supply below)
6	Power Supply - 110VAC/12VDC	Nova Tec P/N 5239	(Supplied with chiller above)
7	Mounting Bracket (for item #5)	(Fabricated Part - ≈6" x 10.5")	Formed using 1/4" Plexiglass sheet and 1" Al Angle
8	Aquarium Insulation (custom formed using Duct Tape to assemble cut pieces as required.)	R-Gard 4' x 8' x 1.5" Polystyrene sheet (or equivalent)	(Cut & tape top, bottom, ends, & sides as required)
9	Condensation Barrier Insulation Kit – 10 Gal Aquarium	Victory Foam P/N 27050	(attached to Aquarium tank using Item #10) (not shown)
10	2-Sided Tape, 1" Wide	Uline P/N S-7186 (or equivalent)	(not shown)
11	Lexan Panel	1/8" Clear Lexan Sheet	(Cut to size) Makes double pane aquarium window. (not shown)

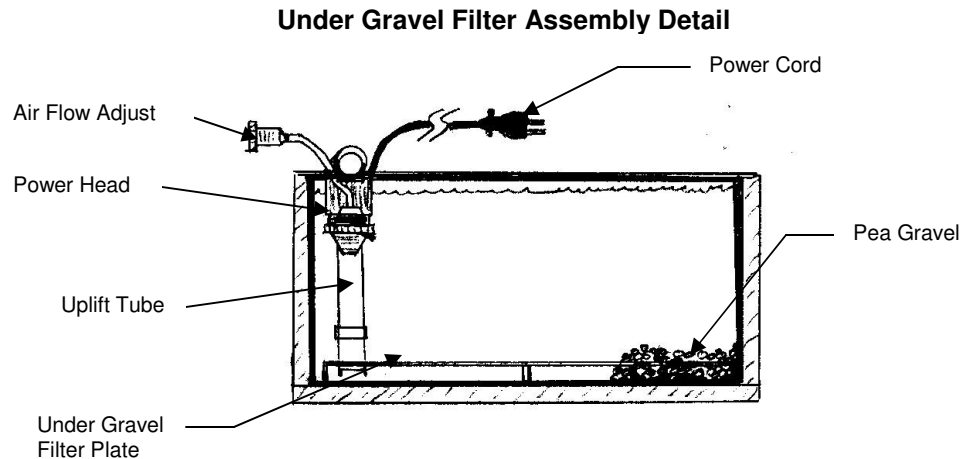
Assembled Aquarium Sketch



1.0 Assembly Procedure

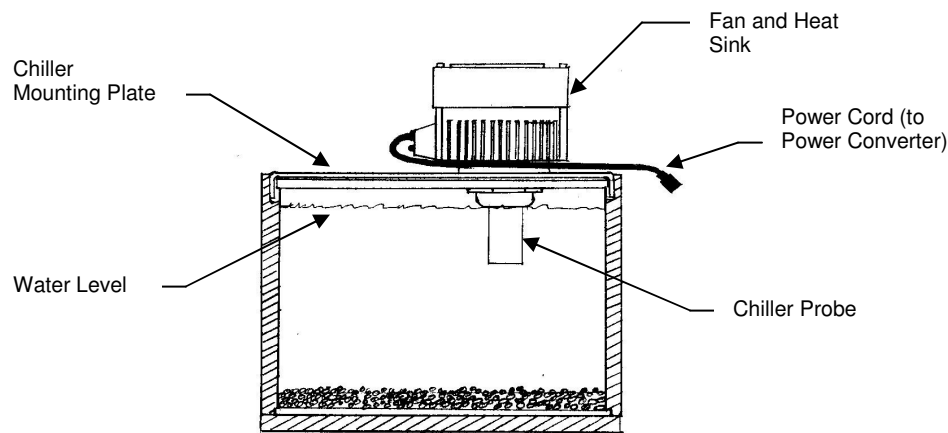
- 1.1 Make sure aquarium, gravel and all equipment and supplies have been disinfected with bleach water (or equivalent), rinsed thoroughly and dried prior to aquarium assembly (see step "2.0 - Cleaning Procedure" below)
- 1.2 Assemble Under Gravel Filter
 - 1.2.1 Filter Plate: Position pre-assembled filter plate on bottom inside the tank with "uplift tube" in left rear corner of the tank (as viewed from front).
NOTE: Filter plate/uplift tube etc. should be pre-assembled in accordance with manufactures instructions.
- 1.3 Attach Power Head
 - 1.3.1 Assemble clamp-on mounting bracket to motor and assemble to left rear of tank (see Under Gravel Assembly Detail sketch below).
 - 1.3.2 Adjust height of uplift tube and position of Power Head so that they fit together well then secure Power Head clamp to rear of tank. (Note that bottom of Power Head rotates to help align it horizontally with uplift tube and Power Head can be moved up and down on mounting bracket for vertical adjustment. Also uplift tube pieces slip to help with vertical adjustment.)
 - 1.3.3 Attach water output deflector to Power Head and adjust to deflect water flow downward at approx 45 degrees.
 - 1.3.4 Attach one end of the air tubing to Power Head and air intake adjustment valve to other end. Position adjustment valve outside rear of tank and secure to top of Power Head tank clamp in clips provided.
 - 1.3.5 Route Power Head power cord out top rear of tank and secure to top of Power Head tank clamp in clips provided.
 - 1.3.6 Check Assembly for proper alignment and fit of all component parts.
Note: A "snug" fit between the "up-lift" tube and the Power Head is very critical to the proper operation of the Under Gravel Filter system.

- 1.4 Add Gravel
 - 1.4.1 Center Plate Assembly in bottom of aquarium tank.
 - 1.4.2 Add pea gravel and distribute over plate, making sure any gaps around the edges of the plate are filled with gravel. (This eliminates the possibility of an egg or small fish getting under the plate and sucked into the Power Head).



- 1.5 Mount Chiller Assembly
 - 1.5.1 Position Chiller Plate across tank at center of tank (position so Insulating Lid fits on top of aquarium properly - see Assembled Aquarium Sketch above, and Chiller Probe Mounting Detail sketch below).
 - 1.5.2 Connect power cord to Power Converter noting connector pin alignment (see Chiller Probe Mounting Detail sketch below).
- 1.6 Add Water
 - 1.6.1 Fill aquarium tank with bottled spring water (or approved optional type).
DO NOT USE WATER DIRECTLY FROM THE TAP
 - 1.6.2 Water level should be very near the top of the tank and chiller probe should be completely submerged (see Chiller Probe Mounting Detail sketch below).
 - 1.6.3 Carefully check around tank and ensure there is no sign of a water leak.
 - 1.6.4 Check Power Head and Up Lift Tube for alignment and snug fit.
- 1.7 Plug in Power Head
 - 1.7.1 Power Outlet should be equipped with approved "Ground Fault" protection.
 - 1.7.2 Check and adjust water flow at Power Head outlet for good flow rate and deflected downward at approximately 45°.
 - 1.7.3 Check Air Input Tube for position (should be extending from rear of tank and secured in Power Head Clamp at mounting clips provided).
 - 1.7.4 Adjust airflow for a good volume of air bubbles

Chiller Probe Mounting Detail (end view)



- 1.8 Plug in Chiller Power Converter
 - 1.8.1 Green LED should light up and fan should come on.

2.0 Cleaning Procedure

NOTE: The best time to disinfect and clean the aquarium is immediately after fish release and before it is stored for the season. (Hint – attach a note (dated) to help you remember that it has been cleaned and is ready to use.) If there is any question about whether or not it needs to be disinfected “do it”. Better to be safe than sorry.

- 2.1 Disinfecting Procedure
 - 2.1.1 Aquarium should be assembled and operational.
 - 2.1.2 Add tap water to tank (near full)
 - 2.1.3 Add $\frac{1}{4}$ to $\frac{1}{2}$ cup of household bleach to tank.
 - 2.1.4 Turn on Power Head and circulate bleach water for a few minutes.
 - 2.1.5 Place all equipment (including thermometer, net, pitcher, etc.) that has been in contact with aquarium water into bleach water solution and allow to soak for a couple of hours min.
- 2.2 Rinse and Dry
 - 2.2.1 Carefully drain and dump bleach water into sewer.
 - 2.2.2 Refill with fresh tap water and run Power Head for a few minutes.
 - 2.2.3 Thoroughly rinse all equipment with clear tap water.
 - 2.2.4 Empty tank and disassemble aquarium.
 - 2.2.5 Spread all equipment, gravel, rocks, etc. in open area to dry.
 - 2.2.6 Dry for several hours to let bleach, chlorine, fluoride etc. dissipate.

NOTE: If the equipment, gravel, etc. are not thoroughly dried before they are stored there is a good chance that they may mold or a fungus develops. Make sure everything dries well before the aquarium is reassembled for operation or, it is packed away for storage..